

ANNUAL SUMMARY OF YAKUTAT FINFISH  
AND  
SHELLFISH MANAGEMENT OPERATIONS, 1991



By  
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and  
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## ABSTRACT

The 1991 Yakutat set gillnet fishery produced a cumulative catch of 404,014 salmon which was 30% above the average since 1960. It was worth about \$2,200,000 to the 162 active permit holders, the tenth highest value on record. The catch included 229,854 sockeye, 166,380 coho, 1,750 chinook, 2,979 chum and 3,051 pink salmon. Sockeye harvests ranged from above average in the Situk-Ahrnklin, Yakutat Bay and Manby Shore fisheries to below average for most other areas. The 1991 sockeye harvest of 229,854 was the fifth highest since statehood and made up 57% of the total salmon harvest in the Yakutat area. The Situk-Ahrnklin catch of 120,074 was the second highest harvest since 1960. Sockeye escapements were generally mixed ranging from above average in the Situk River, to well below average in the East River. Coho returns ranged from below average to above average. The Situk-Ahrnklin fishery was the area's top producer with a catch of 89,434 coho; its highest harvest in over 30 years. The coho harvest of 166,380 was the seventh highest since statehood and 52% above average. There were some signs *late* strength in this year's coho returns. The area's chinook salmon harvest was average. Chinook non-sale was rescinded for the first time in three years after the third week of the season. The Situk-Ahrnklin catch of 786 was 38% above average. The pink salmon harvest of 3,051 fish, and the chum salmon harvest of 2,979 fish were well below average. Most of the pink salmon (2,534) were caught in the Situk-Ahrnklin fishery incidental to the sockeye harvest. The East River contribution of 2,196 chum salmon accounted for 74% of the Yakutat area chum harvest.

## INTRODUCTION/OVERVIEW

### *Yakutat Area Set Gillnet - 1991*

The Yakutat set gillnet fishery (Figure 1) produced a cumulative catch of 404,014 salmon (Table 1), which was 4% below the recent 10-year average (Table 2). Sockeye made up 57% of the year's harvest, while coho accounted for 41%. Catches for pink and chum salmon were among the lowest ever recorded for Yakutat. The chinook harvest of 1,750 was 48% above the recent 10-year average, and the non-sale of chinook in the Situk and Lost rivers was rescinded for the first time in three years. The average setnet income of \$13,880 was 40% below the previous 10-year average (Table 3).

#### **Sockeye Salmon**

The sockeye harvest of 229,854 was 10% above the recent 10-year average. The Situk River catch of 120,074 was the highest since 1966, and only the second time since 1945 that the fishery recorded a catch of over 100,000 sockeye. The Situk accounted for 52% of the total area harvest. The return-per-spawner (R/S) was approximately 2.8:1. The Situk Weir was washed out by a flood on July 27. A total of 66,737 sockeye had passed through as of that date, and the final escapement was estimated at 74,000, exceeding the escapement goal. The East River sockeye catch of 45,334 was 56% below the recent average and was the lowest harvest since 1984. The R/S from the parent year escapement of 34,000 was approximately 2.2:1.

The Alsek River catch of 17,542 was 6% above the recent 10-year average and the second highest in the past eight years. The Klukshu Weir escapement of 18,965 was 2% below average for the years the weir has been in operation (1976 -1991). The Alsek abundance models predicted slightly higher catch and escapement levels. The Yakutat Bay harvest of 28,581 was 41% above average and was the third highest catch on record. The combined Manby fisheries catch of 10,971 was 19% below average, and the Akwe River catch of 4,172 was 56% below average.

#### **Coho Salmon**

The coho harvest of 166,380 was 10% above the recent 10-year average. The Situk River, with a catch of 89,434, and the Tsiu River, with a catch of 38,195, were the peak producers. The Situk, alone, accounted for 54% of the area harvest, and the two rivers together accounted for 77% of the area harvest. The East, Akwe, Italio, Lost, Yahtse, Kaliakh, and the Tsiu Rivers, and the Manby stream fisheries were all below average in harvest.

Escapement counts ranged from below to above average, depending on the area. Over 42 inches of rain was recorded in September, flooding out most coho surveys. All streams from Cape Yakataga to one-half mile west of the Yahtse, except the Priest River and Jetty Creek, remained closed to commercial fishing in 1991. However, the Priest River and Jetty Creek were not fished.

### **Chinook Salmon**

The chinook harvest of 1,750 was 48% above the recent 10-year average. An abundance model showed that Situk River escapement goals would be met, and the non-sale of chinook for the Situk and Lost rivers was rescinded during the fourth week of the season. The harvest of 786 chinook from the Situk was 113% above the recent 10-year average. The final weir count of 897 large chinook exceeded the escapement goal. The Yakutat Bay catch of 392 chinook was 58% above average.

Both the Alsek and East rivers recorded below average catches of Alsek-bound chinook. Later openings affected chinook harvest. The Klukshu Weir escapement of 2,489 chinook was average. The Akwe River catch of 265 chinook was 65% above average, and scale analysis indicated that chinook caught in the Dangerous River were bound for the Akwe. The harvest from the two rivers was the highest on record for the Akwe.

### **Pink Salmon**

The pink salmon harvest of 3,051 was 93% below the recent 10-year average, and the third lowest catch on record. The Situk River, with a catch of 2,534, and Yakutat Bay, with a catch of 506, accounted for almost 100% of the harvest. While area pink runs were average to below average, low fish prices also contributed to the low catch. No effort was directed toward pinks in outlying areas, as the cost to transport them to a buyer was often more than their selling price. For this reason, virtually no harvest was reported from the East, Alsek, Akwe, or Lost rivers, and none at all from any of the fisheries west of Yakutat Bay. Humpback Creek was not fished this season. The peak escapement count of 8,000 pinks was below average. Approximately 4,200 pinks were counted through the Situk Weir before it washed out.

### **Chum Salmon**

The chum salmon return was also poor. The area harvest of 2,979 was 81% below the recent 10-year average and was the lowest catch since 1949. The East River is the only major chum producer in Yakutat. The East River catch of 2,196 accounted for 74% of the total harvest and was 82% below average. A peak escapement count of 4,000 was also below average.

### *Yakutat Area Troll - 1991*

The 1991 troll season in the Yakutat area was characterized by early summer openings. Trolling for chinook salmon was open June 5-7 and June 20-21. The total harvest landed in Yakutat for both periods was 208 chinook. This was the third consecutive year of June trolling for chinook salmon. The chinook harvest was slightly below average, while the coho catch was 43% below average. Overall effort was also below average, with 67 vessels (19 hand troll and 48 power troll) landing in Yakutat (Tables 4, 5, and 6).

A chronology of the Yakutat trolling season is as follows: the winter troll season which had opened on October 1, 1990, for chinook only, closed on April 14 with a catch of 100 chinook recorded from Yakutat Bay. Yakutat Bay is the only portion of the Yakutat area open to trolling during the winter. Trolling reopened at 12:01 am on June 5 for all species of salmon except coho, and again on June 20. On July 1 it opened for all species of salmon. Chinook returns to the Situk River were strong, and the area off the mouth of the Situk was not closed to the taking of chinook as it was in 1990. It was announced that the chinook quota was expected to be reached, and trolling for chinook closed at noon, July 8. Excellent coho catches in the region eliminated the need for a conservation closure, but a 10-day allocation closure occurred from August 15-24. On August 7, specific Yakutat restrictions established by the Board of Fisheries several years ago went into effect (Figure 2). These restrictions close state waters off the mouths of the Situk and Lost Rivers to trolling for the season, and make weekly troll time in other state waters of Yakutat, from approximately Grand Plateau Glacier to Sitkagi Bluffs, the same as the weekly set net time on the Situk River through September 20, the last day of the summer troll season.

The chinook salmon troll catch of 4,207 (Table 6) was 9% below average for the nine years with comparable data. Most of the fish were landed during the first eight days of July. The peak weekly effort on chinook of 12 hand and 9 power trollers occurred during the final week of the season. Trolling accounted for 71% of the chinook landed in Yakutat. The winter harvest of 100 chinook was twice the 1990 harvest.

The troll coho catch of 43,328 was 43% below average and accounted for 26% of the coho landed in Yakutat (Table 7). Excellent coho catches in S.E. Alaska, poor September weather, and the relative lack of a coho "bite" in Yakutat waters, all contributed to reduced power troll effort from the levels of the past two seasons. The reduced troll catch and effort probably allowed the stronger inshore returns experienced by some of the Yakutat area rivers. The peak weekly effort of 10 hand and 28 power trollers occurred during the last week of August. The total effort of 67 vessels was 26% below the recent 9-year average. Trolling was concentrated in state and federal waters off the Yakutat forelands and in Yakutat Bay. Effort in the waters of the Yakataga District was minimal. Table 8 lists the approximate value of hand and power troll caught chinook and coho landed in Yakutat. The approximate exvessel value of troll caught chinook and coho landed in Yakutat was \$530,000.

## SALMON - YAKUTAT DISTRICT

### *Alsek River*

The Alsek River sockeye run continued to show modest improvement in 1991. The 1986 parent year escapement of 23,050 sockeye through the Klukshu Weir produced a catch of 17,542 sockeye and an escapement of 18,965 (Tables 9 and 10). The catch of 17,542 was 6% above the recent 10-year average and was the second highest catch of the last eight years. The weir count of 18,965 was slightly below the average of 19,259 for the years in which the weir has been operated.

Early run sockeye returns were not expected to be good, and the initial opening was delayed by emergency order from the first to the third Monday in June. Catches and catch per unit of effort (CPUE) were carefully monitored in-season to assess run strength for possible extensions of fishing time. Fishing time was not extended during the initial opening. Catch and CPUE improved as the season progressed and fishing time was extended to 48 hours during the second week of the season, and to 72 hours during the third week of July. Fishing time was extended to 96 hours during the last week of July before returning to, and remaining at, 72 hours for the remainder of the sockeye season.

Due to the weak sockeye return to the East River, additional effort was directed toward the Alsek stocks during closed periods on the East River. Openings of 48 and 72 hours for the Alsek coincided with 24-hour openings for the East. Several permit holders fished the first 24 hours on the East, then switched over to the Alsek to take advantage of the extra fishing time. Other East River fishermen traveled back to Yakutat to fish the extended periods in Yakutat Bay. Movement of effort from the East to the Alsek affected Alsek CPUE figures. Indications of good catches and CPUE during the first 24 hours on the Alsek became diluted as East River fishermen moved into marginal or less productive sets on the Alsek.

Two abundance models for the Alsek were used to predict run strength and final escapement through the Klukshu Weir. Both models predicted slightly higher catch and escapement figures than actually occurred. Effective escapement through the Klukshu Weir is figured by deducting the Indian food harvest above the weir from the weir totals. A total of approximately 1,324 sockeye were harvested in the food fishery, leaving an effective escapement of 17,641 sockeye. The escapement counts for the Tanis Rivers were below average, while Basin Creek was not surveyed due to inclement weather (Table 10). The Village Creek counter tallied 4,300 sockeye, but problems with the counter occurred throughout the season.

The chinook harvest of 103 was 66% below the recent 10-year average and the second lowest catch of the past seven years (Table 9). The harvest was affected by the delayed opening on the Alsek. The catch of 49 Alsek chinook in the East River was 25% below average. The Klukshu escapement of 2,485 chinook was average for the years the weir has been in operation. The effective escapement, after deducting 336 chinook taken in the Indian food fishery, was 2,149. A total of 388 chinook were harvested

in the sport fishery, which occurs primarily below the weir. Approximately 95 chinook were harvested in the food fishery that occurred below the weir.

The coho harvest of 5,956 was 14% above the recent 10-year average. Fishing times were extended to four days for the final four weeks of the season. The preliminary Klukshu Weir count of 8,540 was more than three times the previous high for the years the weir has been in operation, indicating excellent escapement for the Canadian segment of the run. Coho escapement counts for the Tanis Rivers and Cabin Creek were below average, but flood conditions limited the effectiveness of escapement surveys. The chum catch of 103 was 86% below average.

Range markers delineated the commercial surf fishing area on the east side of the river mouth. No markers were placed on the west side due to surf action there. Markers used to close the mouths of Williams, Gines, and Emile Creeks may need to be replaced in 1992.

### *East River*

The 1991 East River sockeye harvest was the lowest since 1984, with a total of 45,334 fish landed. The catch was 56% below the recent 10-year average (Table 11) and accounted for only 20% of the area's sockeye production. The East remained on reduced fishing time for most of the sockeye season. Reduced fishing time caused a reduction of effort levels from the peak levels of recent years. A peak count of 79 permit holders fished the East during the first full week of August. The return-per-spawner from the parent year escapement of 34,000 was approximately 2.2:1, which is about half the average R/S since 1975.

The commercial fishery opened on June 24. Fishing time of one 24-hour period was maintained for the first four weeks of the season because of inadequate escapement and to minimize interception of Doame River sockeye and Alsek River chinook. Fishing time was increased to 48 hours for the next two weeks, but escapement remained sluggish, and the river was returned to one 24-hour period for the first two weeks of August. As a conservation measure and to ensure that escapement levels would be adequate, the river was closed to commercial fishing from August 13 to August 29.

As is usual for the East River fishery, catch and effort were divided between the three user groups by fishing location: inriver, surf, and ocean (Table 12). The inriver fishermen harvested approximately 74.9% of the sockeye. The surf fishermen took approximately 20.6% of the catch, and ocean fishermen about 4.5%. The ocean area was fished only during the last week of July and the first week of August.

Doame River sockeye escapement counts were above average. The East River escapement counts built slowly until an aerial survey on September 21 revealed a final sockeye escapement count of 30,000 (Table 13).

The return-per-spawner in the East River tends to decrease with higher escapement counts. In 10 of the past 17 years the R/S has been greater than 3.4:1, and only two of those years came from parent year escapements of over 34,000 sockeye. Of the seven years when the R/S was less than 3.0:1, all seven years came from parent year escapements of 34,000 or more. The average R/S for the East since 1975 is 3.8:1 (Table 14). The assumed sockeye escapement goal range for the East River is 25,000 to 35,000.

A new regulation banning the use of pulley systems within 100 yards of the mouth of the East River at mean low tide was enforced this year. A marker was initially put in place on the west side of the river mouth to delineate this 100-yard distance. No marker was placed on the east side, as that 100-yard distance was regularly flooded by the tide. As the location of the mouth of the river changed from week to week and sometimes from tide to tide, markers proved inadequate to properly delineate the area closed to the use of pulley systems. The marker on the west side of the river was removed prior to the fourth week of the season. No pulley systems were observed within the 100-yard limit at any time during the season, and maintaining a pulley system free zone without markers doesn't appear to be a problem. The majority of the sets in the surf area were made up of pulley systems.

The coho catch of 3,857 was 49% below the recent 10-year average. Early catches were affected by the conservation measures adopted to achieve sockeye escapement, notably the closure of the river for 15 days at the end of August. Flood conditions in September also effected the catch as gear efficiency was reduced. Fishing time was maintained at four days for the final four weeks of the season because of low effort and high water. A peak escapement count of approximately 4,000 coho was recorded on September 21.

The chum catch of 2,196 was 82% below the recent 10-year average of 12,353. The East is the only major chum producer in Yakutat, and this catch accounted for 74% of the area harvest of chums. A peak escapement count of approximately 4,000 was recorded on September 21.

#### *Akwe River*

This year marked the second year in a row of poor sockeye production for the Akwe River. The sockeye harvest of 4,170 was 56% below the recent 10-year average. The Akwe opened on June 24. Catches and CPUE remained below average and fishing periods remained on reduced time for the entire sockeye season. Fishing time remained at 1.5 days for the first four weeks of the season and was further reduced to one day for the next three weeks as a conservation measure. A peak count of five permit holders fished the Akwe during the first two weeks of July. This was the lowest level of effort in the past 10 years, and was well below the effort of 12 to 16 permits recorded for the past four years (Table 15).

The chinook harvest of 265 was 65% above the recent 10-year average and was the second highest chinook catch on record. Scale analysis of chinook caught off the mouth of the Dangerous River indicated

they were Akwe River chinook. The total harvest was the highest chinook catch on record, and 129% above average.

Aerial surveys of the Akwe were of little value in determining escapement due to the turbidity of the river. The river was flown six times from June 15 to July 6 but no fish were seen from the air. A float trip on 8/31-9/01 revealed 3,000 sockeye in the Little Akwe, and 61 sockeye in Swanson Creek (Table 16). This escapement data indicted a removal rate in the Akwe River fishery of about 50%. Given that the fishery was limited to 1.5 days per week, the assumption can be made that this was a highly effective fishery, even though effort level was less than in previous years.

The coho harvest of 5,697 was 30% below the recent 10-year average. Reduced fishing periods remained in effect through the end of August to assist the sockeye escapement, and the Akwe was not fished for coho until the first week in September. Effort levels remained below average through the end of the season. Flooding hampered effective fishing and fishing time was extended to four days for the final four weeks of the season.

Markers were placed on the Akwe one-half mile upstream of the mid-tide level to reduce the problem of fishing mixed stocks of Italio and Akwe fish in the common mouth area. The catch of 67 chum salmon was well below average for the Akwe, and did not indicate a great interception of Italio chums. Some straying of all species occurs, and it is likely that some Italio-bound salmon are intercepted in the Akwe River fishery.

### *Italio River*

Fishing on the Italio occurred in only one of the three distinct river channels. Escapement counts for both sockeye and coho remained poor in the New Italio, the main channel of the river, and it was not opened to commercial fishing during the season. The Old Italio was open for a total of five days, one during the last week of September, and four during the final week of the season, but it was not fished. The Middle Italio was fished for the four days it was open during the last week of the season. The coho catch of 1,778 was 61% below average for the system as a whole, but exactly average for the more reduced fishing times of the past five years (Table 17).

The peak escapement counts of 550 sockeye in the New Italio River and 700 sockeye in Italio Lake were seen on July 19 and August 24, respectively. These counts were well below historical levels. It seems that little progress is being made in restoring this system.

The peak escapement count of 3,000 coho in the Old Italio River was above average. The peak count of 2,000 in the Middle Italio River on September 30 was also above average. However, a final count in the Middle Italio on October 12 revealed only 900 coho. Some of the fish seen in the earlier survey were



likely harvested (Table 18). Upstream markers were used in both the Old and Middle Italo Rivers to delineate closed water areas.

### *Dangerous River*

The Dangerous River was fished for three weeks of the season. The sockeye catch of 390 was 77% below the recent 5-year average (Table 19). The chinook harvest of 104 should be noted, as the previous high catch for the Dangerous was 10 fish. Scale analysis of these chinook indicated that they were Akwe River stock. Escapement surveys were not conducted for the Dangerous.

### *Situk-Ahrnklin Rivers*

The Situk-Ahrnklin River fishery (referred to in this report for concision as "the Situk River fishery") in 1991 recorded excellent catches of chinook, sockeye, and coho salmon, and a poor catch of pink salmon (Table 20). The Situk fishery alone generated 53% of the area's setnet income (Table 21). For the fifth year in a row, the Situk fishery exvessel value was over \$1,000,000 (Table 22). The chinook return was strong, and commercial fishermen were allowed to retain and sell part of their chinook harvest for the first time in three years. The sockeye harvest of 120,074 was 187% above the recent 10-year average. It was the highest catch since 1966 and the second highest since 1945. The Situk sockeye catch accounted for 52% of the Yakutat area sockeye harvest. The coho harvest of 89,434 was 140% above average and the highest catch since 1955. The Situk accounted for 54% of all coho harvested in Yakutat. The pink salmon catch of 2,534 was 83% below average. Sockeye and chinook escapements were good, while pink escapement was below average. Coho surveys were flooded out.

For the fourth year in a row, the Situk Weir was placed in the lower river and used for in-season management of the sockeye and chinook fisheries (Table 23). The weir washed out twice, once during steelhead out-migration, and again at the end of July. The weir was relocated the first time and moved about 120 feet downstream. After the second washout, the weir was removed for the season, as approximately 92% of the sockeye run had passed.

### **Chinook Salmon**

A comprehensive management plan for Situk River chinook was implemented for the first time in 1991. The plan mandated various chinook conservation measures based on an ascending scale of projected escapement through the Situk Weir (see 5 ACC 30.365). An escapement of 750 large chinook through the weir had to be projected by the department before commercial fishermen would be allowed to retain

and sell the fish. A non-sale of chinook policy was implemented for the first three weeks of the season. All fishermen were asked to stay on their gear and release live chinook. Fishermen were allowed to retain dead chinook for personal use, and were required to report dead chinook on their fish tickets. A total of approximately 79 large (>28 inches) and 30 small (<28 inches) chinook were retained for personal use. Approximately 37% of the large chinook that passed through the weir were net-marked, indicating some survival of netted and released fish.

The return of chinook was strong, and more than 750 large chinook were projected to pass through the weir by the third week of the season. Beginning with the first week of July, fishermen were allowed to retain and sell incidentally caught chinook. The chinook harvest of 786 was 52% above the average for the nine years prior to the implementation of the non-sale policy in 1989. The final weir count was 1,613 chinook, of which 897 were large spawners, 132 were 2-ocean jacks, and 584 were 1-ocean jacks. Deducting a known mortality of 22 large spawners above the weir, due primarily to sport fishing, left a large spawner escapement of 875.

### Sockeye Salmon

The Situk was opened by emergency order on June 10, one week earlier than by regulation. This initial 2.5-day opening was confined to the Ahmklin River end of the estuary. Regulatory markers were placed in both Divide Slough and the estuary approximately two miles east of the western tip of Black Sand Island, delineating the area open to fishing. During this opening, 11,468 sockeye were harvested. Age composition analysis showed approximately 92% freshwater age 0-check fish, indicating that most of these fish were of the Ahmklin stock. Ahmklin River escapement counts were below average, with a peak count of 1,000 sockeye recorded on June 22 (Table 24). Perhaps the 2.5-day opening during the week of June 10 was too much pressure on these early run fish, although a similar opening in 1990 sustained a removal rate of about 50%.

The entire Situk-Ahmklin estuary opened to commercial fishing on June 17. Fishing time was maintained at 2.5 days for the first three weeks of the season. Catch and escapement remained good through this period, and fishing time was extended to 4.5 days during the first week of July. It became apparent that the escapement goal of 40,000 - 55,000 would be exceeded, and the Situk remained open to fishing from 6:00 a.m. Sunday, July 7, until noon Thursday, August 8. Allowable gear was increased from one to two 20 fathom nets from July 17 through Thursday, August 8. Time and allowable gear were returned to normal in time for the fall coho fishery. A peak count of 87 permit holders fished the Situk. This effort level was over 50% above average, but was normal for the past three years.

A total of 67,737 sockeye passed through the Situk Weir prior to the washout on July 28. Final escapement was estimated at 74,000. This exceeded the upper end of the escapement goal by 19,000 fish. The total return of sockeye to the Situk was calculated by adding the inriver catch and escapement to half of the catches of the interception fisheries in Yakutat Bay, Manby Shore, and the Lost River, and deducting the Ahmklin River sockeye catch from the total. The 1991 return of 199,961 came primarily

from the 1986 escapement of 71,500. The return-per-spawner was 2.8:1, which was a significant improvement over the recent 10-year average of 1.4:1.

Emigrant steelhead were monitored at the Situk Weir during the sockeye season. Run timing for the emigration this year was later than usual. Prior to the weir washout on May 28, only 71 steelhead were counted down river, and the weir was not fish-tight again until June 10. The number of emigrant steelhead during the 13 days without a weir is unknown. A total of 2,410 steelhead were counted down from June 10-July 12, though 1,800, or 74%, of those went out prior to June 19. Interception of emigrant steelhead in the commercial fishery totaled approximately 130 fish.

### **Coho Salmon**

The return of coho to the Situk-Ahmklin was strong. The harvest of 89,434 coho was the highest since 1955, and almost 28,000 fish more than the next highest catch (61,689) recorded in 1988. The combination of reduced catch and effort in the troll fishery and increased levels of effort in the setnet fishery over previous years contributed to the strong catch. A peak count of 73 permit holders fished the Situk during the third week of September, and effort levels remained above average throughout the season.

Fishing time remained at three days for the first four weeks of the season. Catches indicated the strong return, and fishing time was increased to four days for the final four weeks. An escapement of 455 coho in the Old Situk was slightly below average for the date it was conducted. Flood conditions prevented effective escapement surveys, but bright coho were seen entering the Situk as late as mid-October. Final escapement to the Situk was estimated as average to above average. Escapements to the Ahmklin and its tributaries were below average.

### **Pink and Chum Salmon**

The pink salmon harvest of 2,534 was 83% below the recent 10-year average. As pink salmon harvests were poor area-wide, this catch accounted for 83% of all pinks caught in Yakutat. A total of 4,172 pinks were counted through the Situk Weir before it was removed. No other escapement surveys were conducted. The chum harvest of 186 was 56% below the recent 10-year average.

### *Lost River*

The Lost River was opened on June 17. The catch of 2,787 sockeye was 21% above the recent 10-year average, and marked the third year in a row of above average catches (Table 25). To some extent, this has been a function of increased fishing time on the Lost as a result of the strength of the Situk River sockeye run. The initial opening was 2.5 days. As time was added to the Situk fishing periods, time was also added to the Lost, and the river was open 4.5 days for three weeks of the season. Fishing time was then reduced to assist the Lost River escapement. Documenting early escapement has proven difficult and a peak count of 1,500 sockeye was not recorded until August 28 (Table 26).

The non-sale of chinook was rescinded for the Lost River during the third week of the season. The chinook harvest of 21 was 40% above average.

The coho catch of 3,621 was 46% below the recent 10-year average. Fishing time for the Lost was extended to four days for the last four weeks of the season, as effort levels were low and flood conditions reduced gear efficiency. Though open, the river was not fished during the last week of September. Escapement counts were hampered by flood conditions, and aerial surveys were not effective. A peak count of 1,150 coho in lower Ophir Creek and upper Tawah Creek was recorded on October 16 (Table 26). Escapement counts were below average.

### *Yakutat Bay*

The Yakutat Bay sockeye catch of 28,581 was 41% above the recent 10-year average, and was second only to the 1990 record catch of 41,858 (Table 27). Along with the Situk River, the Yakutat Bay opened on June 10 for 2.5 days. The peak count of 38 permit holders was recorded during this initial opening. Fishing time was increased as the Situk sockeye run built, and the bay fishery was extended to a 4.5 day weekly fishing period for three weeks of the season. The bay was not extended beyond 4.5 days in any week to afford some protection to stocks bound for systems other than the Situk. Fishing time was returned to normal in time for the fall fishing season.

During the fourth and fifth weeks of the season 13,921 sockeye, or 49% of the bay harvest, were caught. These catches followed a very poor third week catch of 313 sockeye. The Manby Shore fishery also recorded a catch of less than 1,000 sockeye during that week, while Situk River catches remained strong. For unknown reasons, it appears that sockeye stocks held off shore during this period and did not become available to the bay fisheries.

The coho catch of 5,296 was 55% above the recent 10-year average, and the second highest catch since 1964. Fishing time was maintained at three days during the early part of the season, and was extended

to four days for the final four weeks. The chinook harvest of 392 was 58% above the recent 10-year average.

Pink salmon returns to Humpback Creek were not strong, thus Humpback Creek was not fished for pinks in 1991. A peak escapement count of 8,000 pinks was recorded on August 27 (Table 28). While slightly under the goal of 10,000, escapement was judged to be adequate. The pink harvest of 506 was 98% below average for the bay.

### *Manby Fisheries*

The combined Manby fisheries sockeye harvest of 10,971 was 19% below the previous 10-year average and well below the record harvests of the past two years (Table 29). The coho catch of 5,609 was 52% below the 10-year average. Sockeye catches were primarily from the Manby Shore Ocean fishery. They totalled 8,413 (Table 30) and accounted for 77% of the catch. Almost all the coho were harvested from the stream fisheries. Catches for individual streams were not broken out prior to 1986.

The Manby Shore Ocean fishery opened on June 17; the inside fisheries on June 24. The ocean fishery remained on a normal fishing period of 2.5 days for the first two weeks of the season. Fishing time was then extended to 4.5 days for the next three weeks due to the strength of the Situk sockeye run. A peak count of nine permit holders fished during the second week of the season; this was well below historical effort levels. Fewer than 1,000 sockeye were harvested during the second week, which is normally a peak catch week. As shown by both the Manby Shore and Yakutat Bay catches for that week, sockeye stocks held off shore during this time and were not available to the fisheries. Sudden Stream remained on normal fishing time throughout the sockeye season.

Manby Stream, Spoon River, Sudden Stream, and Esker Creek were all fished for coho in 1991 (Tables 31 and 32). Manby Stream and Spoon River accounted for 84% of the coho harvest for the area. Escapement counts were limited due to the glacial nature of most of the Manby area streams. The peak count of 450 coho in Esker Creek was above average. Peak escapement counts of 1,500 coho in Spoon River and 400 coho in Manby Stream (Table 33) were average to slightly below average.

### *Yahtse River to Icy Bay*

Fewer than three permits fished the Yahtse and Yana Rivers for coho in 1991, and all catch records are confidential. However, historical catches for the Yahtse River that aren't confidential are listed in Table 34. The Priest River and Jetty Creek were open for the final five weeks of the season, but were not fished. Markers were again used in the Yahtse to protect the clear water spawning tributary that enters

the main river about one-half mile upstream from the mouth. Another marker about three miles upstream from the mouth delineated the upstream closed area. Markers were also placed approximately 1,300 yards upstream from the mouths of both the Priest River and Jetty Creek.

Escapement counts for the Yahtse and Yana rivers were below average. A flight on October 12 revealed peak counts for both rivers. A total of 510 coho were seen in the Yahtse, but only 30 in the Yana. Escapement counts for the Priest River and Jetty Creek were above average. A flight on September 13 revealed peak counts of 4,000 coho in each system (Table 34).

### **SALMON-YAKATAGA DISTRICT**

The Yakataga District, including the Kaliakh River, opened on June 19. The Tsiu River remained closed until coho season to protect the relatively small sockeye population in that system, but all other Yakataga systems were open throughout the sockeye season. There was no recorded effort in the District for sockeye in 1991. Coho catches for both the Tsiu and the Kaliakh Rivers were below average. Low coho prices and the lack of a major buyer on the fishing grounds kept the effort for the District below historical levels, and contributed to the below average harvest. The total production for the Yakataga District was 42,861 coho, 26% of the catch for the Yakutat area. The Kiklukh River, locally referred to as Eight Mile Creek, contributed small numbers of coho to the catch for the District. The Tashalich River was not fished.

#### ***Kaliakh River***

The Kaliakh River was fished initially on August 19, two days prior to the Tsiu River opening. The coho catch of 4,379 was 65% below the recent 10-year average (Table 35). A peak count of seven permit holders fished the river during the second week of the season. This effort level was 63% below average. Only two permit holders fished the Kaliakh exclusively, the rest fished the Tsiu, then switched to the Kaliakh during closed periods on the Tsiu. Effort levels were affected by the lack of a buying station in the area. Many fishermen chose not to contend with the logistical problem of moving the remote Kaliakh fish to market.

Normal fishing time of three days was maintained for the first three weeks of the coho season. Effort levels declined from that point on, and flood conditions reduced gear efficiency, hence fishing time was extended to four days during the second week of September. Along with the Tsiu River, the Kaliakh was further extended to five days during the third week of September. The Kaliakh was not fished during the final two weeks of the season.

Escapement surveys for the Kaliakh are limited due to the remoteness of the spawning tributaries and the fact that fish do not usually appear until after the fishery closes. A flight on September 20 revealed 600 coho in the main river at the mouths of smaller tributaries (Table 36). On-ground monitoring of the Yakataga District by department personnel ended at this time, so a late escapement survey of the Kultie River, the main spawning tributary, was not conducted.

### *Tsiu River*

The Tsiu River coho catch of 38,195 was 9% below the recent 10-year average (Table 37). The Tsiu accounted for 89% of the Yakataga District harvest, and this catch was second only to that of the Situk River for the Yakutat area. The river remained closed during the sockeye season, as in past years, to protect the small sockeye population.

The below average coho harvest was not necessarily an indication of run strength. The lack of a buying station and the subsequent problems associated with moving remote fish to market kept the effort well below historical levels. A peak count of 23 permit holders, 28% below average, fished the Tsiu during the first week of September. Effort level was sharply curtailed from that point on, and no more than seven permit holders fished the river for the final four weeks of the season.

The Tsiu River opened on August 21 for one 24-hour period. The following week a normal fishing period of two days was allowed. The normal two day opening was announced for the first week of September, and the first 24 hour period was fished without incident. The river was opened at 9:00 a.m. on Wednesday, September 4, for the second 24 hour period, but at 10:30 a.m. it was learned that there were no buyers prepared to accept Tsiu River fish. The fishery was subsequently closed until further notice as of noon that Wednesday. Fish caught during this three hour opening were purchased, and finally moved after some delay. No wanton waste occurred. The Tsiu did not reopen during that week due to continued market problems. The peak effort for the Tsiu was recorded during this week, but fishing time was curtailed to 1.1 days.

The Tsiu reopened on September 9, but was not fished due to continuing market problems. Fishing time was extended at this point until 9:00 a.m. Friday, September 13. A severe storm and subsequent flooding delayed effective fishing until September 12. Market conditions had by this time reduced effort to seven permits. Low effort and flood conditions persisted for the month of September, and fishing time was extended to five days during the third week of September, and to four days each for the final two weeks of the season.

A flight on September 20 revealed a peak escapement of 13,400 coho (Table 38). Of these, 10,000 were observed in the Tsiu lagoon, 900 were seen in the upper Tsiu, and 2,500 were seen in the Tsivat River. Escapement surveys were hindered by inclement weather and flood conditions. As monitoring activities

by the department were terminated on September 20, no final surveys were conducted. Escapement was rated as average to slightly above average.

In the Yakutat area the use of pulley systems has been most prevalent on the East and Tsiu Rivers, and six to eight pulley systems were again used on the Tsiu throughout the season. The overflow channel of the Tsivat River, a migratory waterway during flood stage, was not fished in 1991. For the second year in a row, the subsistence period for the Tsiu was changed by emergency order to a 12-hour period on Sunday of each week to avoid any conflict with possible commercial openings on Saturday.

#### *Tashalich and Kiklukh Rivers*

Fewer than three permits fished the Kiklukh River in 1991, and all catch records are confidential. The Tashalich River was not fished this year. An escapement survey conducted during a rain squall on September 20 revealed 400 coho in each system (Table 39).

#### **YAKUTAT AREA SUBSISTENCE AND PERSONAL USE - 1991**

In 1991, 134 subsistence permits were issued for the Yakutat area (Table 40). This represented an increase of 17% over the number of permits issued in 1990. On July 1, 1990, all residents of the state became eligible for subsistence permits, and the number of personal use permits issued has declined since.

The area-wide extrapolated subsistence catch of 379 chinook was average (Table 41). Approximately 41% of the chinook harvest came from Yakutat Bay, while the remainder came from the Situk, Akwe, Alsek, East and Lost Rivers. A total of approximately 109 chinook were taken for personal use in the Situk River commercial fishery prior to the removal of the non-sale restriction.

The area-wide extrapolated subsistence catch of 4,071 sockeye was 35% above average. The Situk-Ahrnklin estuary accounted for 72% of the sockeye harvest and 75% of the coho harvest. The area-wide extrapolated coho harvest of 2,244 was 118% above average (Table 41).



## **YAKUTAT AREA SHELLFISH - 1991**

### **Dungeness Crab**

Dungeness crab is the major shellfish species harvested in the Yakutat area. The 1991 harvest of Dungeness crab was about 2,817,000 lbs. A total of 413 landings were made by the 53 vessels (12 local, 41 non-local) participating in the fishery. The average price was about \$1.46/lb for a total exvessel value of approximately \$4,113,000.

### **Tanner Crab**

A total of six boats (3 local, 3 non-local) fished Tanner crab in 1991. A total of 42 landings were made, and the harvest was 41,709 lbs. The average price was \$1.25/lb.

### **King Crab**

Fewer than three vessels fished king crab in the 1990-1991 season, hence all catch information is confidential.

### **Shrimp**

A preliminary total of 67 landings were made by seven boats that pot-fished shrimp in 1991. The harvest was 6,305 lbs. Landings were made in all months except for April and May. As fewer than three vessels trawled for shrimp in 1991, the catch information is confidential.

### **Scallops**

Five boats fished for scallops in 1991. The catch of approximately 402,571 lbs was 9% less than the poundage reported in 1990. By regulations effective April 30, 1991, the waters of Yakutat Bay east of a line from the eastern-most tip of Ocean Cape to the southern-most tip of Point Manby were closed to the taking of scallops. Prices averaged \$3.30/lb, and the total exvessel value of the fishery was approximately \$1,328,500.

## **1991 HALIBUT**

The 1991 halibut season consisted of two 24-hour periods (noon to noon): May 7-8 and September 3-4. Weather was not a factor for the openings. The total catch of 1,104,357 was second only to the 1986 harvest of 1,112,000 lbs. An average price of \$1.80/lb resulted in an exvessel value of \$1,990,000, which was 28% above the 1990 value.

## **1991 BLACKCOD (SABLEFISH)**

The Eastern Gulf of Alaska regulatory area for blackcod includes the Southeast, East Yakutat, and West Yakutat management areas, and extends roughly from Dixon Entrance to Valdez. Yakutat is located between the East and West Yakutat management areas. All three areas opened on April 1. Weather was, again, not a factor. Blackcod deliveries in Yakutat totalled 1,992,169 lbs. This was almost 750,000 lbs below the 1990 delivery. The total exvessel value was about \$2,898,606. The average price was \$1.65/lb for dressed fish over 5 lbs, and \$1.35/lb for dressed fish under 5 lbs.

Table 1. Harvest of salmon in the Yakutat area set gillnet fishery by fishing period, 1991.

Week	Ending Date	Chinook	Sockeye	Coho	Pink	Chum	Total
24	6/15	117	14,054	19		139	14,329
25	6/22	269	17,675	37		69	18,050
26	6/29	235	15,901	195		33	16,364
27	7/06	503	28,534	263	12	60	29,372
28	7/13	358	41,012	159	36	102	41,667
29	7/20	161	40,431	131	201	53	40,977
30	7/27	73	31,474	91	479	104	32,221
31	8/03	21	22,024	301	415	112	22,873
32	8/10	8	14,100	83	1,004	215	15,410
33	8/17	3	2,198	85	177	86	2,549
34	8/24	2	414	3,337	353	13	4,119
35	8/31		1,317	18,091	374	652	20,434
36	9/07		607	29,539		1,109	31,255
37	9/14		80	25,279		144	25,503
38	9/21		29	40,136		66	40,231
39	9/28		4	29,790		21	29,815
40	10/5			18,844		1	18,845
Totals		1,750	229,854	166,380	3,051	2,979	404,014

Table 2. Ten year comparison of Yakutat area setnet effort and salmon harvest.

Year	Effort	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
1981	152	2,031	132,419	147,537	134,879	10,234	427,100	357
1982	149	1,424	211,895	148,384	9,506	5,837	377,046	313
1983	131	812	155,545	80,974	23,615	11,119	272,035	292
1984	137	944	102,274	182,720	19,387	31,838	337,163	284
1985	149	1,146	236,582	202,166	16,070	12,399	468,363	338
1986	153	1,341	151,672	91,284	7,183	16,635	268,115	359
1987	155	1,766	258,884	126,103	12,690	14,744	414,187	442
1988	160	894	162,188	205,866	120,205	29,247	518,400	466
1989	164	810	329,563	176,847	59,319	16,238	582,777	517
1990	161	664	344,461	148,890	30,839	5,813	530,667	517
AVE.	151	1,183	208,548	151,077	43,369	15,410	419,585	388
1991	162	1,750	229,854	166,380	3,051	2,979	404,014	544
Deviation*								
1991	+7%	+48%	+10%	+10%	-93%	-81%	-4%	+40%

\* Deviation from a 10-year average.

Table 3. Total average earnings from commercial fishing, excluding shellfish, Yakutat area, 1975-1991.

Year	Total Finfish Income <sup>a</sup>	Total Salmon Troll Income	Total Salmon Setnet Income	No. of Active Setnet Permits	Aver. Earning Per Setnet Permit	Previous 10 Year Aver. Setnet Income	Total Setnet-Troll Salmon Income
1975	\$ 737,270 <sup>b</sup>	\$ 29,185 <sup>c</sup>	\$ 708,085	104	\$ 6,809	-	\$ 737,270
1976	1,252,865 <sup>b</sup>	33,082 <sup>c</sup>	1,219,783	125	9,758	-	1,252,865
1977	2,155,718 <sup>b</sup>	89,108 <sup>c</sup>	2,066,610	130	15,897	-	2,155,718
1978	3,066,121 <sup>b</sup>	396,330	2,669,791	151	17,681	-	3,066,121
1979	3,317,191	70,016	3,168,975	166	17,762	-	3,238,991
1980	2,090,752 <sup>b</sup>	161,000	1,929,752	150	12,059	-	2,090,752
1981	2,428,949 <sup>b</sup>	101,820	2,327,129	152	15,310	-	2,428,949
1982	2,908,629	672,490	2,084,139	149	13,988	-	2,756,629
1983	1,553,472	82,313	1,273,159	131	9,719	-	1,355,472
1984	3,128,096 <sup>d</sup>	560,307	2,375,789	137	17,341	-	2,936,096
1985	4,268,029 <sup>d</sup>	879,932	3,010,579	149	20,205	\$13,632	3,890,511
1986	6,019,829	988,055	1,981,807	153	12,953	14,972	2,969,862
1987	9,767,778	1,180,928	5,077,589	155	32,759	15,292	6,258,517
1988	19,026,072	1,601,344	8,944,228	160	55,901	16,978	10,545,572
1989	11,220,922	1,214,305	4,174,510	164	25,454	20,800	5,388,815
1990	10,691,082	1,203,003	4,493,681	161	27,911	21,569	5,696,684
1991	7,665,394	530,387	2,248,558	162	13,880	23,155	2,778,945

<sup>a</sup> Through 1985, data includes salmon setnet, salmon hand and power troll, and halibut. Starting in 1986, data also includes blackcod.

<sup>b</sup> Excludes halibut, thus is salmon only (no blackcod harvest before 1984).

<sup>c</sup> Hand troll only; no power troll data, or no power trolling done

<sup>d</sup> Excludes blackcod landings of 178,000 lb in 1984, 52,000 lb in 1985, by non-local boats.

Table 4. Harvest of chinook salmon in the Yakutat area troll fishery by fishing period, 1991.

Week	Ending Date	Hand Boats	Hand Catch	Power Boats	Power Catch	Total Boats	Total Catch
23	6/08	8	64	1	19	9	83
25	6/22	9	98	1	27	10	125
27	7/06	9	175	5	1,452	14	1,627
28	7/13	12	227	9	2,145	21	2,372
Totals		38	564	16	3,643	54	4,207

Table 5. Harvest of coho salmon in the Yakutat area troll fishery by fishing period, 1991.

Week	Ending Date	Hand Boats	Hand Catch	Power Boats	Power Catch	Total Boats	Total Catch
27	7/06	9	157	5	241	14	398
28	7/13	12	128	9	307	21	425
29	7/20	7	472	4	1,117	11	1,589
30	7/27	10	1,051	11	5,466	21	6,517
31	8/03	10	430	21	9,524	31	9,954
32	8/10	10	201	13	3,485	23	3,686
33	8/17	7	112	14	6,522	21	6,634
35	8/31	10	251	28	9,637	38	9,888
36	9/07	3	191	4	723	7	914
37	9/14	8	329	10	2,000	18	2,329
38	9/21	5	294	5	687	10	981
Totals		91	3,616	124	39,709	215	43,328

Table 6. Harvest comparison of chinook and coho salmon in the Yakutat area troll fishery, 1982-1991.

Year	Chinook	Coho	Total	Hand	Power	Total
1982	1,118	68,300	69,418	30	55	85
1983	1,430	11,246	12,676	21	6	27
1984	746	40,600	41,346	26	23	49
1985	3,857	78,021	81,878	34	27	61
1986	5,197	90,428	95,625	32	59	91
1987	7,424	53,368	60,792	21	67	88
1988	5,641	54,383	60,024	33	48	81
1989	7,303	128,373	135,676	29	99	128
1990	8,808	89,318	98,126	30	107	137
AVE.	4,613	76,004	80,617	29	61	90
1991	4,207	43,328	47,535	19	48	67
Deviation*						
1991	-9%	-43%	-41%	-34%	-21%	-26%

\* Deviation from a 10-year average.

Table 7. Harvest of salmon in the Yakutat area setnet fishery by fishing area, 1991.

Area	Chinook	Sockeye	Coho	Pink	Chum	Total
Alsek	103	17,542	5,697		103	23,704
East	49	45,334	3,857	2	2,196	51,438
Akwe	265	4,172	5,697	2	67	10,203
Itallo			1,778			1,778
Dangerous	104	390				494
Situk	786	120,074	89,434	2,534	186	213,014
Lost	21	2,789	3,621	7	3	6,441
Yakutat Bay	392	28,581	5,296	506	397	35,172
Manby Shore	30	8,413	24		26	8,493
Manby Stream			2,313			2,313
Spoon			2,374			2,374
Sudden		2,558	156			2,714
Esker			*			*
Yahtse			*			*
Yana		*	*			*
Kaliakh			4,379			4,379
Tsiu			38,195		1	38,196
Tashalich	Not fished					
Kiklukh			*			*
Totals	1,750	229,854	166,380	3,051	2,979	404,014
Troll	4,207		43,328			47,535
Catch	5,957	229,854	209,708	3,051	2,979	451,549

\* Fewer than 3 permits, all catch figures are confidential



Table 8. Exvessel dollar value of Yakutat fisheries to fishermen, 1991.<sup>a</sup>

Salmon			
Species	Setnet	Hand Troll	Power Troll
Chinook	\$ 25,145	\$ 19,063	\$ 123,133
Sockeye	1,254,827		
Coho	957,978	32,399	355,792
Pink	1,686		
Chum	8,922		
Total	2,248,558	51,462	478,925
Total Halibut			\$ 1,987,843
Total Blackcod			2,898,606
Total Dungeness			4,113,327
Total Scallops			1,328,484
Total Finfish Income			\$ 7,665,394
Total Shellfish Income			5,441,811
Total Fishing Income			13,107,205

- <sup>a</sup> Figures used to calculate values: Setnet (chinook, 26,750 lbs. @ \$0.94/lb; sockeye, 1,378,931 lbs. @ \$0.91/lb; coho, 1,496,840 lbs. @ \$0.64/lb; pink 10,540 lbs. @ \$0.16/lb; chum 22,877 lbs @ \$0.39/lb); Troll catch landed in Yakutat (chinook 54,691 lbs. @ \$2.60/lb; coho 346,624 lbs. @ \$1.12/lb). Halibut 1,104,357 lbs. @ \$1.80/lb; Blackcod 1,992,169 lbs @ \$1.45/lb; Dungeness Crab 2,817,000 lbs @ \$1.46/lb; Scallops 402,571 lbs @ \$3.30/lb.

Table 9. Harvest of salmon in the Alsek River set gillnet fishery by fishing period, 1991, and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25	6/22	21	68	875				943	1.0
26	6/29	11	20	757				777	2.0
27	7/06	21	10	1,336				1,346	2.0
28	7/13	21	3	1,475			1	1,479	2.0
29	7/20	21		3,533				3,533	3.0
30	7/27	19	1	6,277			2	6,280	4.0
31	8/03	20	1	2,200	3		2	2,206	4.0
32	8/10	14		956	6		1	963	3.0
33-34	8/24	3		23	16		1	40	6.0
35	8/31	11		65	673		19	757	3.0
36	9/07	4		30	271		14	315	3.0
37	9/14	7		10	928		30	968	4.0
38	9/21	8		4	1,790		18	1,812	4.0
39-40	10/5	8		1	2,269		15	2,285	8.0
Totals		21	103	17,542	5,956		103	23,704	49.0
10-Year Comparison									
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days	
1981	21	761	24,680	10,614	25	472	36,552	40.0	
1982	25	523	28,917	6,304	6	72	35,822	34.0	
1983	18	77	19,131	5,661	7	299	25,175	40.0	
1984	22	60	14,409	7,854	23	1,354	26,677	33.0	
1985	21	212	5,603	5,674	8	423	11,920	33.0	
1986	23	476	24,164	1,331	13	537	26,521	34.0	
1987	27	345	11,299	2,537	0	1,922	16,102	38.5	
1988	30	223	6,286	4,986	7	907	12,409	34.0	
1989	28	240	13,513	5,833	3	1,029	20,618	38.0	
1990	25	78	16,852	1,437	0	495	18,862	38.0	
AVE.	24	300	16,485	5,223	9	751	23,066	36.3	
1991	21	103	17,542	5,956	0	103	23,704	49.0	
Deviation*									
1991	-12%	-66%	+6%	+14%	-100%	-86%	+3%	+35%	

\* Deviation from a 10-year average.

Table 10. Alsek River and Klukshu Weir escapement, 1991.

Date	Area	Chinook	Sockeye	Coho	Remarks
8/09	Tanis #1		400		
	Tanis # 2		400		
9/21	Tanis # 1			200	
	Tanis # 2			100	
	Cabin Creek			100	

Klukshu Weir\*

Chinook	Sockeye	Coho	Total
2,489	18,965	8,540	29,994

- \* A food fishery harvest of 336 chinook and 1,324 sockeye above the weir counts deducted from the weir counts leave an effective escapement of 2,149 chinook and 17,641 sockeye. The weir was removed prior to the end of the coho run.

Table 11. Harvest of salmon in the East River set gillnet fishery by fishing period, 1991, and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
26	6/29	36	22	216				238	1.0
27	7/06	37	2	354				356	1.0
28	7/13	36	11	854			2	867	1.0
29	7/20	43	1	3,961			2	3,964	1.0
30	7/27	50	4	11,403			19	11,426	2.0
31	8/03	74	6	14,941	252	1	67	15,267	2.0
32	8/10	79	3	10,155	5	1	186	10,350	1.0
33	8/17	43		1,931	15		83	2,029	1.0
34	8/24	Not	Open						0
35	8/31	21		920	422		604	1,946	1.0
36	9/07	15		528	1,682		1,087	3,297	3.0
37	9/14	5		55	640		108	803	4.0
38	9/21	3		16	461		37	514	4.0
39-40	10/5	4			380		1	381	8.0
Totals		79	49	45,334	3,857	2	2,196	52,438	30.0
10-Year Comparison									
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days	
1981	58	116	47,365	6,520	2,141	8,734	64,876	34.0	
1982	40	81	97,785	2,026	428	4,668	104,988	42.0	
1983	52	30	82,204	4,891	273	9,566	96,964	29.5	
1984	48	22	39,023	10,875	851	22,419	73,190	27.5	
1985	66	67	185,851	8,148	801	10,576	206,143	42.0	
1986	78	109	76,355	2,769	332	14,285	93,850	28.0	
1987	89	98	133,723	5,134	113	10,525	149,593	50.2	
1988	81	40	61,483	20,148	2,628	24,453	108,752	39.0	
1989	92	43	145,516	7,287	678	13,724	167,248	43.0	
1990	103	45	161,378	7,482	352	4,578	174,015	36.0	
AVE.	71	65	103,068	7,528	860	12,353	123,962	37.1	
1991	79	49	45,334	3,857	2	2,196	51,438	30.0	
Deviation*									
1991	+11%	-25%	-56%	-49%	-99%	-82%	-48%	-19%	

\* Deviation from a 10-year average.

Table 12. Harvest of sockeye salmon in the innriver, surf, and ocean East River fisheries, 1991.

Week	Ending Date	Area	Sockeye Catch	% Sockeye Catch
29	7/20	Inriver	2,564	64.7
		Surf	1,397	35.3
		Ocean	Not fished	
30	7/27	Inriver	10,222	89.6
		Surf	1,181	10.4
		Ocean	Not fished	
31	8/03	Inriver	10,472	70.1
		Surf	3,607	24.1
		Ocean	862	5.8
32	8/10	Inriver	6,955	68.5
		Surf	2,012	19.8
		Ocean	1,188	11.7
33	8/17	Inriver	1,574	81.5
		Surf	357	18.5
		Ocean	Not fished	
Totals		Inriver	31,787	75.0
		Surf	8,554	20.2
		Ocean	2,050	4.8

Table 13. East River escapement, 1991.

Date	Sockeye	Coho	Chum	Remarks
6/10	700			
6/15	450			Poor visibility
6/19	750			
6/22	700			All in Doame River
6/25	300			
6/30	950			Poor visibility
7/02	1,050			450 in Doame
7/06	950			
7/09	1,150			
7/13	1,100			Poor visibility
7/19	1,000			Poor visibility
7/20	1,800			
7/24	2,500			Poor visibility
7/29	7,000			
8/05	7,500			
8/07	12,000			
8/08	14,000			
8/09	12,000			Poor visibility
8/15	15,000			
8/22	23,500			
8/24	16,000		1,500	
8/27	28,500	1,000	1,000	
9/21	30,000	4,000	4,000	Coho and chums mixed
9/30		200		Below Steve's Island

Table 14. East River return-per-spawner since 1975.

Year	Total Return	Parent Year Escapement	Return Per Spawner	Rank
1976	79,816	10,000	7.98	1
1982	177,785	25,000	7.11	2
1985	245,851	35,000	7.02	3
1983	147,204	30,000	4.91	4
1990	203,378	44,000	4.62	5
1977	61,309	15,000	4.08	6
1984	68,023	18,000	3.78	7
1975	44,530	12,000	3.71	8
1979	81,262	22,000	3.69	9
1988	99,483	29,000	3.43	10
1989	175,516	60,000	2.93	11
1987	167,723	65,000	2.58	12
1991	75,334	34,000	2.22	13
1981	82,365	40,000	2.06	14
1978	56,003	35,000	1.60	15
1986	120,355	80,000	1.50	16
1980	66,530	50,000	1.33	17

Average return-per-spawner since 1975: 3.79:1

Table 15. Harvest of salmon in the Akwe River set gillnet fishery by fishing period, 1991, and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
26	6/29	4	141	640				781	1.5
27	7/06	5	80	1,003				1,083	1.5
28	7/13	5	39	1,121				1,160	1.5
29	7/20	4	5	1,061		2	25	1,093	1.5
30-31	8/03	6		344			35	379	2.0
36-37	9/14	5		2	477		2	481	6.0
38	9/21	6		1	1,671		2	1,674	4.0
39	9/28	4			1,873		3	1,876	4.0
40	10/5	4			1,676			1,676	4.0
Totals		6	265	4,172	5,697	2	67	10,203	26.0

10-Year Comparison								
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
1981	10	108	15,453	6,540	959	35	23,095	22.0
1982	9	120	4,904	9,937	122	63	15,146	23.5
1983	9	93	5,687	5,282	151	73	11,286	30.0
1984	10	143	17,706	8,837	1,027	662	28,375	23.2
1985	9	135	4,938	4,044	19	45	9,181	21.0
1986	15	337	9,497	8,635	41	99	19,609	32.5
1987	12	190	12,133	7,945	32	513	20,813	38.0
1988	13	100	12,476	13,705	1,686	2,288	30,255	39.0
1989	16	192	8,653	10,278	491	314	19,928	27.0
1990	15	193	3,996	6,718	11	42	10,960	26.0
AVE.	12	161	9,544	8,192	454	413	18,865	28.2
1991	6	265	4,172	5,697	2	67	10,203	26.0

Deviation*								
1991	-50%	+65%	-56%	-30%	-99%	-84%	-46%	-8%

\* Deviation from a 10-year average.



Table 16. Akwe River escapement, 1991<sup>a</sup>.

Date	Chinook	Sockeye	Coho	Remarks
8/24		20		Swanson Creek
8/31		61		Foot, Swanson Creek
8/31		3,000		Foot, Little Akwe

<sup>a</sup> The Akwe was flown six times from June 15 to July 6. Due to the turbidity of the river, no fish were seen.

Table 17. Harvest of salmon in the Italo River set gillnet fishery by fishing period, 1991 and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
39	9/28	Not	Fished						1.0
40	10/5	3			1,778			1,778	4.0
Totals		3			1,778			1,778	5.0
10-Year Comparison									
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days	
1981	7	4	1,690	6,047	2,670	808	11,219	40.0	
1982	4	6	2,831	6,824	272	599	10,532	33.0	
1983	4	0	1,346	4,747	455	574	7,130	29.0	
1984	9	1	8,210	9,315	1,364	5,614	24,504	38.0	
1985	4	4	1,146	9,496	356	478	11,480	34.0	
1986	6	18	3,976	1,873	0	903	6,770	35.5	
1987	4	2	778	1,331	3	649	2,763	33.0	
1988/90	7	0	5	4,821	6	16	4,848	39.0	
AVE.	5	4	1,998	4,445	513	964	7,925	31.0	
1991	3	0	0	1,778	0	0	1,778	5.0	
Deviation*									
1991	-40%	-100%	-100%	-60%	-100%	-100%	-78%	-84%	

<sup>a</sup> Deviation from a 10-year average.

Table 18. Italo River and Italo Lake escapement, 1991.

Date	Area	Sockeye	Coho	Pink	Remarks
6/15	New Italo				None seen
6/19	New Italo	25			Intertidal
6/22	New Italo	400			Intertidal
6/25	New Italo	300			Intertidal
7/02	New Italo	400			Intertidal
7/06	New Italo	475			
7/13	New Italo				None seen
7/19	New Italo	550			
7/19	Italo Lake				
8/22	Middle Italo		20		
8/22	Old Italo		125		
8/24	Italo Lake	700			
9/20	Middle Italo		400		
9/20	New Italo		100		
9/20	Old Italo		1,300		
9/26	Middle		200		
9/26	New Italo		200		
9/30	Old Italo		3,000		
9/30	Middle Italo		2,000		
10/12	Old Italo		2,300		
10/12	New Italo		25		
10/12	Middle Italo		900		

Table 19. Five-year catch comparison and the 1991 harvest of salmon in the Dangerous River set gillnet fishery.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
1986	4	10	2,811	202	22	8	3,053	42.0
1987	3	4	2,433				2,437	43.5
1988	3		1,305				1,305	41.5
1989/90	5		1,832	875	2	7	2,716	95.0
AVE.	3	3	1,676	215	5	3	1,902	44.4
1991	3	104	390	0	0	0	494	48.0
Deviation*								
1991	0	+3,367%	-77%	-100%	-100%	-100%	-74%	+8%

\* Deviation from a 5-year average.

Table 20. Harvest of salmon in the Situk-Ahmklin Inlet set gillnet fishery, 1991, and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
24	6/15	50		11,468				11,468	2.5
25	6/22	78		12,212	3			12,215	2.5
26	6/29	70		13,023	181		1	13,205	2.5
27	7/06	76	333	15,517	39	1	4	15,894	4.5
28	7/13	87	241	27,660	31	21	74	28,027	6.75
29	7/20	84	140	24,927	60	175	19	25,321	7.0
30	7/27	71	58	9,492	18	385	12	9,965	7.0
31	8/03	32	10	2,720	6	356	14	3,106	7.0
32	8/10	28	2	2,381	21	966	9	3,379	4.25
33	8/17	22	1	219	58	164	2	444	3.0
34	8/24	77	1	319	910	309	8	1,547	3.0
35	8/31	53		101	6,008	157	25	6,291	3.0
36	9/07	56		22	12,312		6	12,340	3.0
37	9/14	57		6	15,614		4	15,624	4.0
38	9/21	73		5	25,699		6	25,710	4.0
39	9/28	72		2	18,389		2	18,393	4.0
40	10/5	63			10,085			10,085	4.0
Totals		87	786	120,074	89,434	2,534	186	213,014	72.0
10-Year Comparison									
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days	
1981	61	859	29,257	36,267	26,259	139	92,781	47.0	
1982	40	244	29,221	27,320	4,316	101	61,202	40.0	
1983	41	345	19,426	15,047	6,314	100	41,232	37.5	
1984	46	513	7,438	47,479	12,162	714	68,306	34.5	
1985	45	472	18,887	54,992	9,054	158	83,563	45.0	
1986	41	182	7,663	14,401	1,530	109	23,885	16.5	
1987	61	759	63,501	30,269	10,758	899	106,186	58.0	
1988	83	300	52,128	61,689	15,323	886	130,326	53.5	
1989	94	1	99,945	39,318	42,974	883	183,071	73.75	
1990	60		90,735	45,075	23,895	283	159,988	74.08	
AVE.	57	368	41,820	37,186	15,259	427	95,054	47.98	
1991	87	786	120,074	89,434	2,534	186	213,014	72.0	
Deviation*									
1991	+53%	+113%	+187%	+140%	-83%	-56%	+124%	+50%	

\* Deviation from a 10-year average.

Table 21. Exvessel value of Situk-Ahrnklin set gillnet fishery, 1975 -1991.

Year	Total Yakutat Area Dollar Value; Salmon Setnet Harvest	Percent Value of Situk to Yakutat Area Setnet
1975	\$ 713,860	36%
1976	1,214,550	40%
1977	2,065,055	43%
1978	3,066,120	25%
1979	3,239,000	22%
1980	2,090,750	20%
1981	2,333,300	26%
1982	2,084,140	18%
1983	1,355,470	15%
1984	2,375,790	24%
1985	3,010,580	17%
1986	1,981,807	(low) 9%
1987	5,077,589	25%
1988	8,944,228	29%
1989	4,174,510	30%
1990	4,493,681	26%
AVE.	3,013,777	25%
1991	2,248,681	(high) 53%
Deviation*		
1991	-25%	+112%

\* Deviation from a 16-year average.

Table 22. Dollar value of salmon harvest in the Situk-Ahmklin set gillnet fishery, 1975-1991.\*

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1975	\$ 7,000	\$ 128,000	\$ 114,560	\$ 7,000	\$ 4	\$ 256,760
1976	24,000	345,300	108,000	8,300	80	485,680
1977	21,000	588,560	255,530	25,230	310	890,630
1978	10,000	333,150	417,270	7,140	126	767,690
1979	29,560	430,350	223,950	31,200	220	715,280
1980	22,540	155,130	218,190	23,100	106	419,070
1981	25,000	237,710	308,270	40,440	625	612,050
1982	5,610	170,940	191,240	3,800	410	372,000
1983	4,830	101,000	96,300	3,300	315	205,750
1984	12,310	50,740	498,530	10,640	2,400	575,120
1985	11,330	122,770	385,000	4,750	710	524,560
1986	3,276	59,771	116,648	688	294	(low) 180,677
1987	23,908	755,662	454,035	9,682	5,394	1,248,984
1988	10,350	1,018,060	1,522,176	40,223	10,632	(high) 2,601,441
1989	No Sale	899,505	283,090	58,445	3,748	1,244,788
1990	No Sale	816,615	352,937	18,638	1,070	1,189,260
1991	12,071	651,684	518,138	1,399	460	1,183,752

\* (Average price/lb) x (average lb/fish) x (total fish delivered).

Table 23. Situk Weir escapement counts, 1991.<sup>a</sup>

Chinook <sup>b</sup>	Sockeye	Coho	Pink	Chum	Total
1,613	67,737	0	4,172	3	73,525

Table 24. Situk-Ahmklin escapement surveys, 1991.

Date	Area	Chinook	Sockeye	Pink	Coho	Remarks
6/22	Ahmklin/Antlen Rivers		1,000			Aerial survey
6/27	Ahmklin/Antlen Rivers		500			Boat survey
7/9	Ahmkli/Antlen Rivers		300			Boat survey
7/29	Mountain Lake		2,500			Aerial survey
7/29	Mountain Stream		3,000			Aerial survey
10/2	Old Situk				455	Boat survey

<sup>a</sup> Weir washout on July 28; weir removed

<sup>b</sup> 897 large, 132 two ocean, 584 one ocean

Table 25. Harvest of salmon in the Lost River set gillnet fishery by fishing period, 1991, and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25-27	7/06	7	12	1,130	1		1	1,144	9.5
28	7/13	5	6	1,166	3	2	2	1,179	4.5
29-30	7/27	4	3	463		5		471	7.0
31-34	8/24	0							11.5
35-37	9/14	5		28	661			849	10.0
38	9/21	4		2	1,423			1,425	4.0
39	9/28	Not	Fished						4.0
40	10/5	4			1,387			1,387	4.0
Totals		5	21	2,789	3,621	7	3	6,441	54.5

10-Year Comparison									
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days	
1981	5	15	2,456	9,548	840	1	12,860	48.5	
1982	5	10	5,102	9,955	700	13	15,780	40.0	
1983	5	3	2,459	5,340	1,376	3	9,181	37.5	
1984	5	22	726	10,688	1,792	71	13,299	34.5	
1985	5	6	1,272	9,129	315	13	10,736	40.5	
1986	4	6	498	2,495	80	3	3,082	29.0	
1987	4	33	1,976	3,646	113	37	5,805	41.0	
1988	6	22	2,316	5,905	478	41	8,762	48.0	
1989	4	15	3,090	5,737	816	20	9,678	56.5	
1990	4		3,093	4,922	218	5	8,238	58.5	
AVE.	5	15	2,299	6,737	673	21	9,742	43.4	
1991	5	21	2,789	3,621	7	3	6,441	54.5	

Deviation*									
1991	0	+40%	+21%	-46%	-99%	-86%	-44%	+26%	

\* Deviation from a 10-year average.



Table 26. Lost River escapement, 1991.

Date	Area	Sockeye	Coho	Pink	Remarks
7/19	Ophir Cr./Coast Guard Lake				None seen
7/19	Tawah Cr.	50			At REL Bridge
8/05	Coast Guard Lake	350			Aerial
8/22	Ophir Cr.	225			Aerial
8/22	Tawah Cr.	10			Aerial
8/22	Coast Guard Lake	30			Aerial
8/28	Ophir Cr.	1,500			Aerial
9/13	Tawah Cr.		654	300	Boat below REL Bridge
9/15	Tawah Cr.		150	200	REL - CGL
9/15	Ophir Cr.	400	50		Boat
10/16	Ophir Cr.		200		Boat
10/16	Tawah		975		Boat

Table 27. Harvest of salmon in the Yakutat Bay set gillnet fishery by fishing period, 1991, and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
24	6/15	38	117	2,586	19		139	2,861	2.5
25	6/22	26	78	2,552	13		46	2,689	2.5
26	6/29	21	50	313	14		31	408	2.5
27	7/06	29	60	7,393	220	11	54	7,738	4.5
28	7/13	25	55	6,528	125	13	23	6,744	4.5
29	7/20	24	12	2,974	71	21	6	3,084	4.5
30	7/27	21	10	3,756	73	92	37	3,968	3.5
31	8/03	13	4	1,699	40	58	28	1,829	2.5
32	8/10	12	3	608	51	37	19	718	2.5
33	8/17	4	2	35	9	13		59	3.0
34	8/24	4	1	85	40	44	5	175	3.0
35-36	9/07	7		43	689	217	4	953	6.0
37	9/14	6		7	1,323		2	1,332	4.0
38	9/21	3		1	839		3	843	4.0
39	9/28	3		1	815			816	4.0
40	10/5	3			955			955	4.0
Totals		38	392	28,581	5,296	506	397	35,172	57.5

10-Year Comparison								
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
1981	24	132	13,491	1,855	101,833	45	117,356	48.0
1982	26	415	23,922	3,712	3,602	272	31,923	40.0
1983	25	239	17,603	3,634	14,900	363	36,739	40.0
1984	32	125	9,134	2,913	2,159	996	15,327	29.0
1985	32	237	10,442	3,204	5,479	694	20,606	45.5
1986	38	202	21,826	3,056	5,162	687	30,933	36.0
1987	52	319	24,943	2,520	1,671	196	29,649	46.0
1988	34	196	14,239	3,164	99,965	651	118,215	64.5
1989	47	297	24,528	4,712	14,299	309	44,145	69.0
1990	42	304	41,858	5,472	6,178	359	54,171	62.75
AVE.	35	247	20,254	3,424	25,525	457	49,906	48.0
1991	38	392	28,581	5,296	506	397	35,172	57.5
Deviation*								
1991	+9%	+58%	+41%	+55%	-98%	-13%	-30%	+20%

\* Deviation from a 10-year average.

Table 28. Humpback Creek escapement, 1991.

Date	Pink	Remarks
8/22	3,000	Aerial survey
8/27	8,000	Foot survey

Table 29. Harvest of salmon in the Manby Shore Ocean and Streams set gillnet fisheries by fishing periods, 1991, and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25	6/22	8	19	1,781	21		23	1,852	2.5
26	6/29	9	2	914			1	917	2.5
27	7/06	9	6	2,008	3		1	2,018	4.5
28	7/13	6	3	2,208				2,211	4.5
29-31	8/03	10		4,060			1	4,061	9.5
32-35	8/31	Not	Fished						12.0
36	9/07	5			1,977			1,977	3.0
37	9/14	5			1,741			1,741	4.0
38	9/21	4			1,664			1,664	3.0
39	9/28	3			203			203	3.0
40	10/5	Not	Fished						3.0
Totals		9	30	10,971	5,609		26	16,636	50.5
10-Year Comparison									
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days	
1980	9	43	10,332	8,814	1		19,190	26.5	
1981	20	36	13,145	8,575	152		21,908	35.0	
1982	22	25	19,211	11,450	60	49	30,795	26.0	
1983	20	25	7,689	5,457	139	13	13,323	22.0	
1984	18	44	5,116	18,661	2	8	23,831	28.0	
1985	14	5	6,662	16,366	33	12	23,078	34.5	
1986	6		4,879	3,978		3	8,860	43.5	
1987	10	15	8,067	7,552		1	15,635	47.5	
1988	15	13	11,923	20,844	106	1	32,887	52.5	
1989	25	33	33,078	7,150	47	6	40,304	51.5	
1990	18	44	25,666	16,295	3	41	42,049	54.5	
AVE.	17	24	13,544	11,632	54	13	25,267	42.2	
1991	9	30	10,971	5,609	0	26	16,636	50.5	
Deviation*									
1991	-47%	+25%	-19%	-52%	-100%	+100%	-34%	+20%	

\* Deviation from a 10-year average.

Table 30. Harvest of salmon in the Manby Shore Ocean set gillnet fishery by fishing period, 1991, and 5-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25	6/22	8	19	1,781	21		23	1,844	2.5
26	6/29	9	2	914			1	917	2.5
27	7/06	7	6	1,510	3		1	1,520	4.5
28	7/13	6	3	2,208				2,211	4.5
29	7/20	4		2,000			1	2,001	4.5
30	7/27	Not fished							2.5
Totals			30	8,413	24		26	8,493	21.0
5-Year Comparison									
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days*	
1986	Not fished								10.0
1987	10	15	5,036	3			5,039	14.0	
1988	9	12	9,153	1			9,166	16.5	
1989	21	23	30,370	8	22	2	30,425	24.0	
1990	17	44	20,465	65	3	33	20,610	27.5	
AVE.	14	24	16,256	19	6	9	16,310	18.4	
1991	9	30	8,413	24	0	26	8,493	21.0	
Deviation*									
1991	-36%	+25%	-48%	+26%	-100%	+189%	-48%	+14%	

\* Days open to fishing are through statistical week 30

\* Deviation from a 5-year average.

Table 31. Five-year catch comparison and the 1991 harvest of salmon in the Manby Stream set gillnet fishery, 1991.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days <sup>a</sup>
1986	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	17.0
1987	4		9	4,772		1	4,782	21.0
1988	6		18	7,247	17	1	7,283	22.0
1989	7		8	2,627	25	3	2,663	17.0
1990	3		1	4,783			4,784	18.0
AVE.	5	0	9	4,857	10	1	4,878	19.0
1991	3	0	0	2,313	0	0	2,313	18.0
Deviation <sup>c</sup>								
1991	-40%	0	-100%	-52%	-100%	-100%	-53%	-5%

<sup>a</sup> Days open to fishing for statistical weeks 34-39.

<sup>b</sup> Fewer than 3 permits; all catch figures are confidential.

<sup>c</sup> Deviation from a 5-year average.

Table 32. Five-year catch comparison and the 1991 harvest of salmon in the combined Esker Creek, Spoon River, and Sudden Stream set gillnet fisheries, 1991.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days <sup>a</sup>
1986	5		1	3,366			3,367	17.0
1987	3		1	2,777			2,778	22.0
1988	11		17	11,825	89	1	11,932	22.0
1989	4		13	4,263		1	4,277	17.0
1990	4		10	11,393			11,403	19.0
AVE.	5	0	8	6,725	18	1	6,751	19.4
1991	5	0	0	3,272	0	0	3,272	19.0
Deviation <sup>c</sup>								
1991	0	0	-100%	-51%	-100	-100%	-52%	-2%

<sup>c</sup> Deviation from a 5-year average.

Table 33. Manby streams escapement, 1991.

Date	Area	Coho	Remarks
8/28	Manby Stream	95	First clear tributary to the west
8/28	Spoon River	1,500	200 in tidal area
9/13	Manby Stream	300	First clear tributary to the west
9/13	Spoon River	600	
9/13	Esker Creek	450	
9/20	Manby Stream	400	
9/20	Spoon River	300	Poor visibility
10/12	Spoon River	140	
10/12	Manby Stream	400	First clear tributary to the west

Table 34. Yahtse River to Icy Bay escapement, 1991.

Date	Area	Coho	Remarks
8/19	Yahtse River		None seen
8/19	Jetty Creek		None seen
8/19	Priest River		None seen
8/28	Yahtse River	10	West tributary
8/28	Yana River	50	Seen in the mainstem
8/28	Jetty Creek	700	Also 1,000 pinks
8/28	Priest River	1,500	Some in each of three tributaries
8/28	Pt. Riou Creek	2	
9/13	Yahtse River	675	Mostly in west tributary
9/13	Yana River	150	Seen in the lagoon area
9/13	Jetty Creek	4,000	
9/13	Priest River	4,000	
9/20	Yahtse River	300	
9/20	Yana River		None seen
9/20	Jetty Creek	3,300	
9/20	Priest River	3,600	
10/12	Yahtse River	510	
10/12	Yana River	30	



Table 35. Harvest of salmon in the Kaliakh River set gillnet fishery by fishing period, 1991, and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25-33	8/17	Not	Fished						23.5
34	8/24	3			132			132	3.0
35	8/31	7			1,616			1,616	3.0
36	9/07	6			1,510			1,510	3.0
37-38	9/21	3			1,121			1,121	9.0
39-40	10/5	Not	Fished						6.0
Totals		7			4,379			4,379	47.5
10-Year Comparison									
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days*	
1981	N.A.			3,986			3,986	13.0	
1982	N.A.			15,586			15,586	13.0	
1983	N.A.			4,433			4,433	10.0	
1984	15			13,082			13,082	21.0	
1985	22			22,641			22,641	20.0	
1986	27			10,775			10,775	23.0	
1987	24	1	6	15,709		1	15,709	16.0	
1988	14		2	8,867			8,869	27.0	
1989	11			16,858			16,858	25.35	
1990	18		7	13,775		3	13,785	20.0	
AVE.	19	1	15	12,571	0	4	12,571	18.84	
1991	7	0	0	4,379	0	0	4,379	25.0	
Deviation*									
1991	-63%	-100%	-100%	-65%	0	-100%	-65%	+33%	

\* For 10-year comparison, days are for coho season only.

\* Deviation from a 10-year average.

Table 36. Kaliakh River escapement, 1991.

Date	Coho	Remarks
9/20	600	Main river at outlets of tributaries

Table 37. Harvest of salmon in the Tsiu River set gillnet fishery by fishing period, 1991, and 10-year catch comparison.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
34	8/24	13			2,242			2,242	1.0
35	8/31	21			9,135			9,135	2.0
36	9/07	23			10,251			10,251	1.1
37	9/14	7			3,255			3,255	4.0
38	9/21	6			5,465			5,465	5.0
39	9/28	4			5,443			5,443	4.0
40	10/5	5			2,404			2,404	4.0
Totals		23			38,195			38,195	21.1
10-Year Comparison									
Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days	
1981				29,189			29,189	13.0	
1982				46,436			46,436	13.0	
1983				19,687			19,687	10.0	
1984				50,875			50,875	21.0	
1985	34			64,601			64,601	20.0	
1986	29			19,251			19,251	17.0	
1987	37			35,685			35,685	11.0	
1988	38		24	56,116	3	3	56,146	20.0	
1989	24		41	62,939	2		62,982	18.75	
1990	29		31	33,785	2		33,818	10.0	
AVE.	32		32	41,856	2		41,867	15.38	
1991	23			38,195		1	38,196	21.1	
Deviation*									
1991	-28%		-100%	-9%	-100%		-9%	+37%	

\* Deviation from a 10-year average.

Table 38. Tsiu/Tsivat River escapement, 1991.

Date	Below markers/Tsiu	Above markers/Tsiu	Tsivat	Remarks
8/19	450	100		Poor visibility
8/24	2,500	800		
8/27	500	3,200		
9/01	3,500	5,000		
9/07	2,800	7,800		Poor visibility, partial survey
9/12	2,200	9,000	1,900	Poor visibility
9/20	3,200	10,900	2,500	Poor visibility

Table 39. Tashalich River to Cape Suckling escapement, 1991.

Date	Area	Coho	Remarks
9/20	Tashalich River	400	Poor visibility
9/20	Kiklikh (Eight Mile) River	400	Poor visibility

Table 40. Yakutat subsistence salmon harvest, 1991.<sup>a</sup>

Location <sup>a</sup>	Chinook	Sockeye	Coho	Pink	Chum	Other	Total
Alsek (8)	65	191	50			9 Dolly Varden	315
East (7)	3	475			30		508
Akwe (3)	34	145	96				275
Yakutat Bay (21)	153	226	30	1		4 steelhead	414
Situk (69)	110	2,918	1,667	76	2	2 steelhead	4,671
Tsiu (2)			110				110
Ankau (4)	10		76				86
Lost (8)	1	25	143				169
Sudden (1)		50	50				100
Kaliakh (0)							
						9 Dolly Varden	
Totals	376	4,030	2,222	77	32	6 steelhead	6,648

Number of permits issued	134	
Number of permits returned	132	99%
Number of permit holders that fished	111	
Number of permit holders that did not fish	21	

<sup>a</sup> Preliminary data.

<sup>b</sup> Number in parenthesis shows number of permits reporting harvest from that area. Some permits reported catch from more than one area.

Table 41. Yakutat historical subsistence harvest, 1980-1991.<sup>a</sup>

Year	Chinook			Sockeye			Coho			Other
	A <sup>b</sup>	B <sup>c</sup>	C <sup>d</sup>	A	B	C	A	B	C	
1980	284	?	?	961	?	?	982	?	?	
1981	167	?	?	952	?	?	1,701	?	?	
1982	198	?	?	1,645	?	?	2,180	?	?	
1983	188	?	?	1,175	?	?	360	?	?	
1984	233	56%	416	890	56%	1,598	572	56%	1,021	
1985	230	52%	442	1,003	52%	1,929	59	7%	843	
1986	301	88%	342	2,357	88%	2,678	586	89%	658	92 Pinks
1987	372	92%	404	3,598	92%	3,911	883	80%	1,104	
1988	196	90%	218	2,119	90%	2,354	1,293	92%	1,405	99 Pinks; 64 Chums
1989	284	79%	359	3,537	79%	4,477	894	79%	1,131	220 Pinks; 49 Chums
1990	355	75%	473	3,152	75%	4,202	784	75%	1,045	1 Pinks; 16 Chums
AVE. <sup>e</sup>	282		379	2,379		3,021	724		1,030	77 Pinks
1991	375	99%	379	4,030	99%	4,071	2,222	99%	2,244	32 Chums
Deviation <sup>f</sup>										
1991			0%			+35%			+118%	

<sup>a</sup> Data available only for years starting in 1980<sup>b</sup> A=Actual recorded harvest.<sup>c</sup> B=Percent of permits returned.<sup>d</sup> C=Extrapolated total harvest estimate; (i.e. C=A divided by B)<sup>e</sup> Seven year average from 1984 through 1990<sup>f</sup> Deviation from an 11-year average.

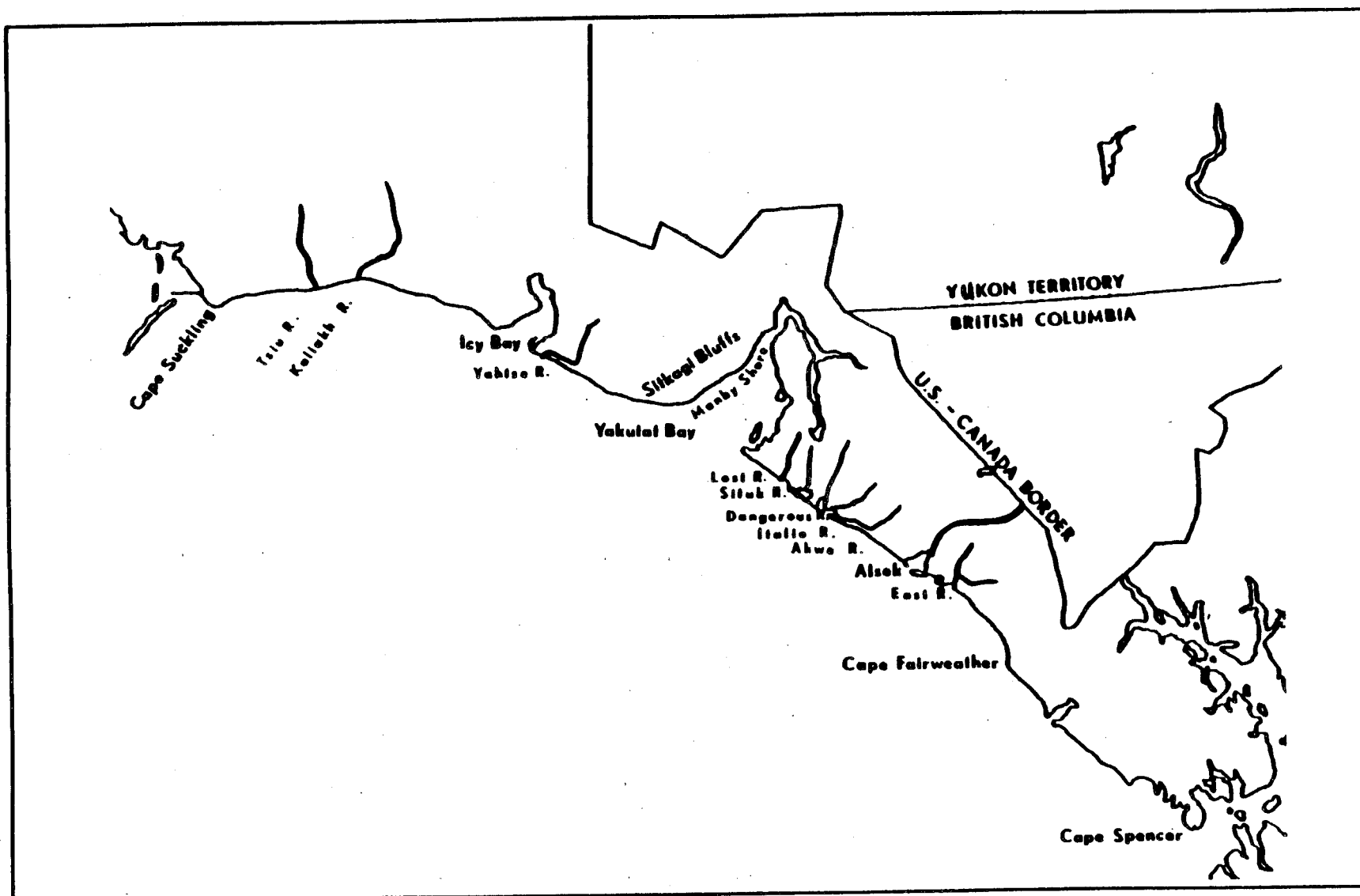


Figure 1. Yakutat Management Area (Cape Suckling to Cape Fairweather).

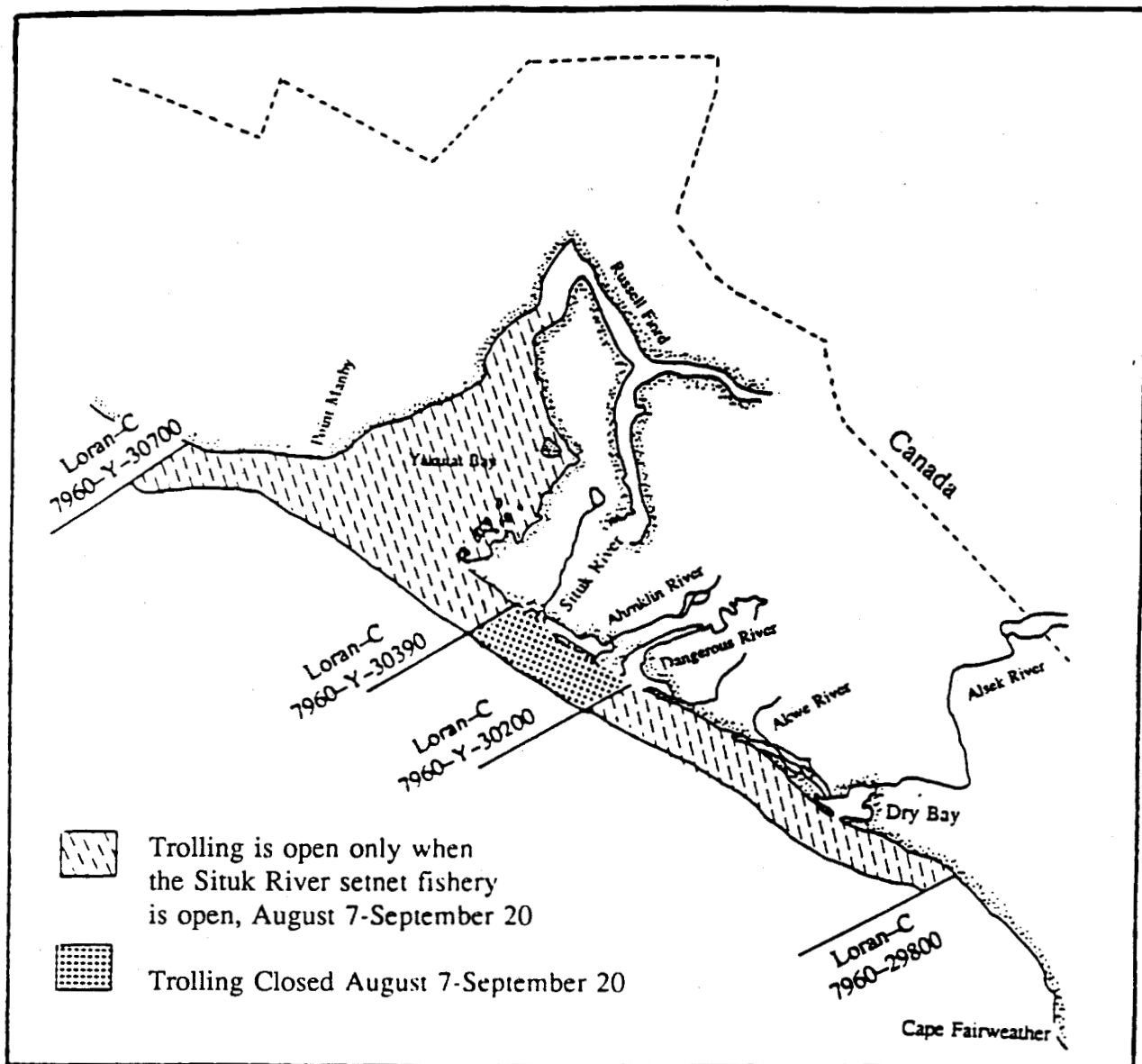


Figure 2. Yakutat area troll closures.

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